

REMARKS

Upon entry of this amendment, claims 1, 2, 4-18, and 20-25 will be at issue. Only claims 1, 15, and 17 are in independent form. No additional claim fee is required.

Claim 15

The examiner previously concluded that claim 15 recites patentable subject matter, and so it has been re-written in independent form. Since the new form of the claim expressly incorporates the elements of the base claim, the applicants believe that it is now allowable.

Claims 1 and 17

The examiner rejected claims 1 and 17 based primarily on the Bolleman patent and the Tamura patent, asserting that the transducer elements in those references could be separately controlled because the Bolleman patent discloses a separate conductor leading to each transducer element (action at page 6) and because each transducer element in the Tamura patent "has its own electrode 21 or 22" (action at page 3). Claims 1 and 17 have been amended to recite that the transducer elements are not just separately controllable, but separately controlled.

The Bolleman patent clearly does not teach separate control of the different transducer elements, and it would not have been obvious to one of ordinary skill in the art to separately control those elements. A multilayer structure is provided in the Bolleman device to increase the displacement of the transducer. See col. 5, lines 43-47. Separate control of the individual transducer elements would make it difficult to achieve this objective, and thus would run counter to the purpose of the Bolleman patent. Running contrary to the purpose of the patent, separate control of the individual transducer elements in the Bolleman patent would not be obvious to one of ordinary skill in the art.

Similarly, the Tamura patent does not teach separate control of different transducer elements, and it would not have been obvious to one of ordinary skill in the art to separately control the elements that are disclosed in that patent. In the Tamura device, a single step-up transformer is connected to each of the two transducer elements (electrodes 21 and 22). Each element is connected to a separate terminal of the secondary winding on the transformer. Col. 2, lines 4-6. Consequently, the potential at each electrode is controlled by a common source. Separate control would not be obvious. One of the goals of the Tamura device is to reduce the number of electrical connections to simplify construction and reduce cost. Col. 1, lines 32-35, col. 2, lines 25-28. Separate control of the different electrodes would make run contrary to this goal, and therefore would not be obvious to one of ordinary skill in the art.

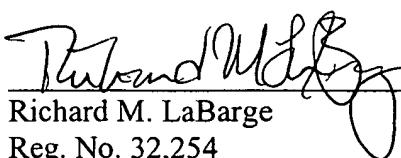
Conclusion

The applicant believes that this amendment puts all claims of the application in form for allowance. Accordingly, the applicant requests a notice of allowance of claims 1, 2, 4-18, and 20-25. Because the distinction being asserted here – separate control of the two transducer elements – was previously argued (and generally, but not specifically, claimed), it is believed that no new search is required.

Respectfully submitted,

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